1:Stanford U. S-4, 5 1956 AF14 Central China AF14

The distribution, supply sale, and transport of coal by these mines are completely under government control. The direction of flow and the regions in which coal is to be marketed are fixed for each individual mine in order to avoid the waste of transportation facilities.[29]

The Chinese Communists re-classified freight into thirty classes instead of the five which were used during pre-Communist days. Except for a few luxury items, the general level of freight rates applied on all the railways in Central-South China is said to be lower than that of the Nationalist Government. The rate for first-class commodities is about sixteen times higher than that of the thirtieth class. The rates decrease as the distances increase. The lowest freight rates are charged for grains and other food stuffs. Special rates charged for coal are even lower than the cost of operation.[30] The enforcement of the "responsibility system" began in January 1953, but because of the irresponsibility of railway staffs there was much loss in transit, and further damages resulted from train accidents and other causes, for which the rail administrations had to pay a great amount of compensation.[31]

IV. HIGHWAY ROUTES OF CENTRAL-SOUTH CHINA

The exact mileage of the network of highways in the Central-South Region is difficult to determine. The amount given in provincial reports does not agree with the amount given in national reports. There is no distinction made between provincial roads and county roads, nor is there any consisteney

29. Ibid., p. 25.

30. New China's Railroad Reconstruction, pp. 32-33.

31. The Chinese Communist Problems, Ser. #1, Hong Kong, 1954, p. 77.

1 Stanford U. S-4.5 1956 AF14 Central China AF14

Table 2. National Highways of Central-South China*

Unit: Km = Kilometers
Mi = Miles

Highway	Terminals	Principal Cities Served	Length	Remarks
Basic No. 1	Shanghai - Lhasa, Tibet	Chiuchiang, Hankow, and Ich'ang	5,221 Km (3,265 Mi)	completed Sikang - Tibet Highway
Basic No. 2	Chiuchiang - P'engchiang	Canton, Ch'ü-chiang, Hankow, and Kaifeng	3,411 Km (2,132 Mi)	
Basic No. 3	Mawei - Hoserhkuosu	Lin Ch'uan, Nanchang, Wuchang, and Hankow	5,386 Km (3,366 Mi)	
Lateral No. 1	Amoy - Munankuan	Kanhsien, Ch'ichiang, P'inglo, Nanning, Munankuan	1,921 Km (1,201 Mi)	
Lateral No. 2	Shanghai - Tienshengch'iao	Nanchang, Changsha, and Ch'angte	2,782 Km (1,739 Mi)	
Lateral No. 3	Lüsukang - Paocheng	Nanyang and Laochok'ou	2,053 Km (1,283 Mi)	
Lateral No. 4	Lienyünkang - Mingt'akai	Kaifeng and Loyang	5,759 Km (3,599 Mi)	
Longitudinal No. 1	Haian - Shanhaikuan	Chanchiang, Canton, and Meihsien	4,297 Km (2,686 Mi)	
Longitudinal No. 2	Swatow - Chouchiak'ou	Kanhsien, Chian, and Fengch'ang	2,042 Km (1,276 Mi)	
Longitudinal No. 3	Ch'ang-te - P'engchiang	Li-hsien, Chingmen, Hsiangyang, and Fanch'eng	2,128 Km (1,330 Mi)	
Longitudinal No. 4	Chanchiang - Pailingniao	Liencchiang, and Pinyang	3,614 Km (2,259 Mi)	
		Total	38,614 Km (24,134 Mi)	

* Hsing-cheng-ydan, Hsin-wen-chü [Bureau of Information, Executive Yüan], Kuo-tao Wang [Highway Network], Nanking, 1947, pp. 2-20, 21-50.

(Table 2 faces p. 766.)

1:Stanford U. S-4, 5 1956 AF14 Central China AF14

in the various records concerning the completion of new roads, or when such roads are open or closed to traffic. 491

In the present study, all the major national highways which pass through Central-South China are considered first; then some of the provincial highways connecting cities and towns of the region are discussed.

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Table 3. The Inter-Provincial Highways of Central-South China Operated in 1952*

Highways	Terminals	Length (Kilometers and Miles)
Kaifeng-Hsiaochiehling Line	Kaifeng - Hsiaochiehling	434 Km (271 Mi.)
Kaifeng - T'ungkuan Line	Kaifeng - T'ungkuan	453 Km (283 Mi.)
Kaifeng - Nanyang Line	Kaifeng - Nanyang	398 Km (249 Mi.)
Kaifeng - P'uyang Line	Kaifeng - P'uyang	130 Km (81 Mi.)
Jufenk'ang - Kaifeng Line	Jufenk'ang - Kaifeng	178 Km (111 Mi.)
Hunan - Kiangsi Line	Ch'ang-te - Nanchang	566 Km (354 Mi.)
Hupeh - Kiangsi Line	Wuchang - Nanchang	380 Km (238 Mi.)
Nanchang - Mawei Line	Nanchang - Mawei	338 Km (211 Mi.)
Nanchang - Changwangmiao Line	Nanchang - Changwangmiao	335 Km (209 Mi.)
Changsha - Hsiaot'ang Line	Changsha - Hsiaot'ang	387 Km (242 Mi.)
Hsiaotang - Shenoh'uan Line	Hsiaot'ang - Shenoh'uan	644 Km (402 Mi.)
Changsha - Nienyüp'u Line	Changsha - Nienyüp'u	626 Km (391 Mi.)
Wuchang- Changsha Line	Wuchang - Changsha	387 Km (242 Mi.)
Kweilin - Hengyang Line	Kweilin - Hengyang	361 Km (226 Mi.)
Kweilin - Ch'inglungchieh Line	Kweilin - Ch'inglungchieh	154 Km (96 Mi.)
Kweilin - Huangshaho Line	Kweilin - Huangshaho	159 Km (99 Mi.)
Lip'u - Kweilin Line	Lip'u - Kweilin	104 Km (65 Mi.)
Lip'u - Mengshiang Line	Lip'u - Mengshiang	584 Km (365 Mi.)
Lip'u - Sansui Line	Lip'u - Sansui	
Liuchou - Lip'u Line	Liuchou - Lip'u	326 Km (204 Mi.)
Liuchou - Liuchai Line	Liuchou - Liuchai	
Nanning - Munankuan Line	Nanning - Munankuan	---
Canton - Hsingning Line	Canton - Hsingning	375 Km (234 Mi.)
Canton - Swatow Line	Canton - Swatow	472 Km (295 Mi.)

[Table 3 fac. p. 767 (a)]

1. Stanford U. S-4, 5 1956 AF14 Central China, AF14

Canton - Haintu Line	Canton - Haintu	279 Km (174 Mi)
Canton - Haian Line	Canton - Haian	640 Km (400 Mi)
Ch'ŭchiang - Kanchou Line	Ch'ŭchiang - Kanchou	229 Km (143 Mi)
Canton - Kanchou Line	Canton - Hsingning - Kanchou	-
Hainan Circular Line	East Line) West Line)	1,347 Km (842 Mi)
K'aip'ing - Yŭehnan Line	K'aip'ing - Fangch'eng - Yŭehnan	-
Changchou - Swatow Line	Changchou - Swatow	298 Km (186 Mi)
	Total	10,582 Km (6,614 Mi)

• Fei-ch'ŭ Ti Kung-lu Chiao-t'ung [The Highway Transportion of Communist China], The Central Committee of the Chinese Nationalist Party, Taipei, 1953.

(Table 3 faces p. 767.) [b]

1:Stanford U. S-4, 5 1956 AF14 Central China AF14

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Before the Sino-Japanese War, the Central-South Region had opened to traffic 15,409 kilometers (9,631 mi.) of national highways, and 13,272 kilometers (7,247 mi.) of provincial highways in the six provinces (excluding Hainan Island). Most of these highways were seriously damaged during the war.[32] After the war, progress was made in highway repair work. In February 1950, the Communists reported that a total of 16,559 kilometers (10,290 mi.), or 59 per cent of all the highways in the five provinces of Honan, Hupeh, Kiangsi, and Kwangtung had been repaired. In these five provinces, 1,021 bridges and 65 large culverts with a total length of 15,060 meters (49,397 ft.) were rebuilt or strengthened,[33] and 64 ferry stations were re-established. At the same time, there were 5,279 motor vehicle [493] and 10,537 rubber-tire carts in operation in the five provinces. By October 1950, about 64 per cent of the highways in the region had been repaired and opened to traffic. From January to June 1950, the [494] volume of traffic on the highways in this region amounted to only 12,595 tons. If all the highways in this region were properly repaired, there may be as many as 41,966 kilometers (25,064 miles) in operation by 1955. The best highways are located in Hunan Province, and they can be regarded as China's "model highways."[34]

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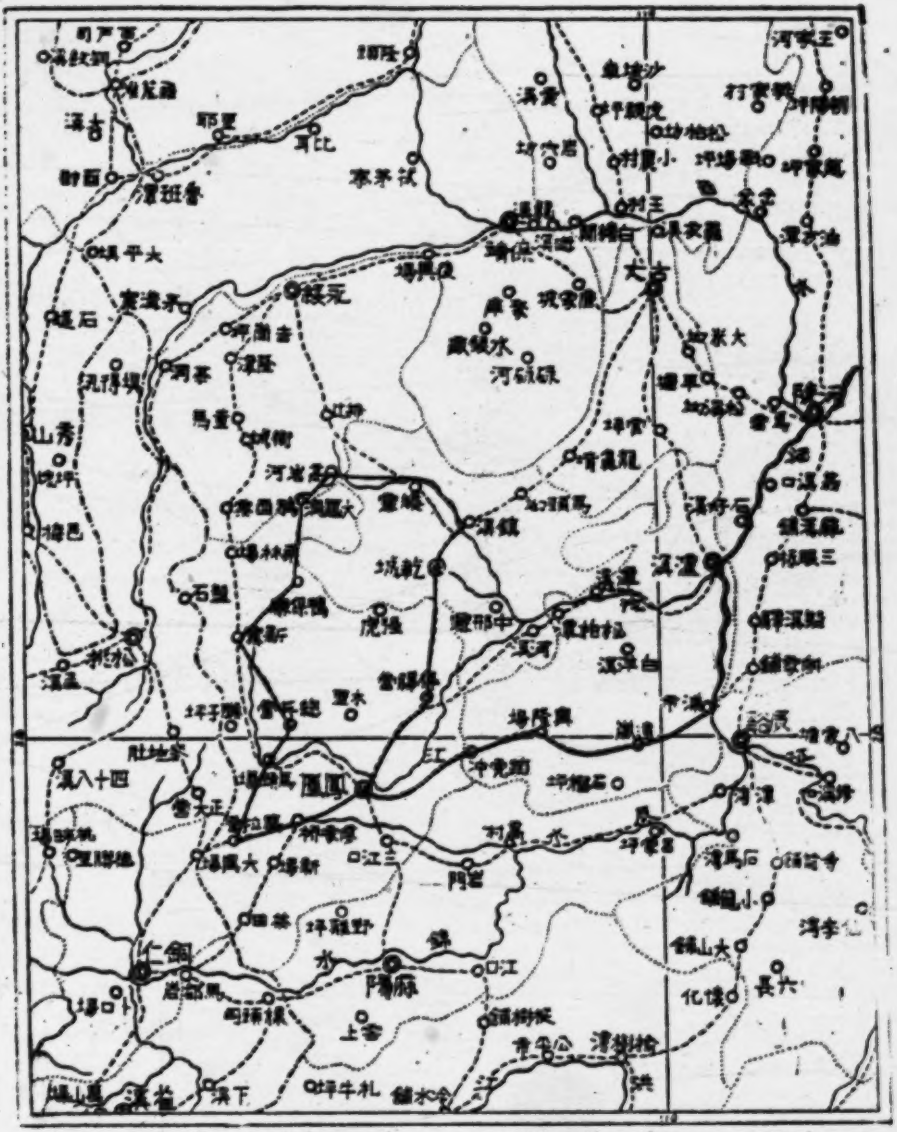
32. Teng, Tzu-hui "Chung-nan Chün-cheng-wei-yuan-hui Pao-kao" 1950, The Report of the Central-South Military and Political Committee, 1950, Hsin-hua Yüeh-pao [New China Monthly], Peking, Vol. II, No. 6, Oct. 1950.

33. Mao, Shou-chin, Kung-lu Ch'ang shih [General Knowledge about Highways], Shanghai, 1951, p. 8.

34. Ibid.

C M 102 131 491
2:Ling & Ruey--48f E-5 (1933) 1947 AE5 Miao AE5
Central China AF14



— Provincial Boundary ····· Hsien Boundary ---- Highways
_____ Lines of the Investigation

Scale 1: 500, 000

Illus. 3. Map of the Lines of the Investigation in the Miao Frontier

/35/

C 712 were built for defense. At such places as Huang-lo-chai and Shui-ta-t'ien in the sub-prefecture large paos were erected. In thinly populated and topographically restricted areas, t'uns were built, which communicated with each other for mutual defense. A t'un is built according to the requirements of the place, varying from several chang to more than ten chang in width, and from ten to 30 chang in length. The foundation of a t'un is laid with two or three ch'ih of rough stones, on which are added two layers of bricks about four or five ch'ih in height; and then the crenulated wall with apertures for observation and firing guns is put. Each t'un accommodates a few dozen men. Animals and grains are also sheltered in it." There C 361 712 are two kinds of paos, the stone and the earth paos. A small pao is oval in shape, a street runs through the center, bordered by residential dwellings, with two pao gates at the two ends of the street. A big pao is round in shape with three or four pao gates (Illus. 9), and the streets within are often in the shape of a cross.

C [342] Besides the paos and the t'uns in the Miao area there are many stone houses /tiao/. Formerly in the areas around these stone houses t'un soldiers were posted to keep watch. Today, such areas have become little settlements, as in Illus. 10. These are villages near the stone houses. The Chinese also settled at important communication points leading to bridges. C [491] [443] They even built houses on bridges, forming bridge streets, such as shown in Illus. 11. Some markets also have appeared at ferry points along the rivers. Chinese settlements are distributed mostly along communication lines and garrison points so that in case of alarm they can come to each other's aid.

M 361 [712] [363] The Miao settlement is called "chai" (Illus. 12, 13), built generally against a mountainside or along a river, without any uniform appearance. The chai wall is made of earth or stone slabs, and there is no definite number of gates. The streets of a chai zigzag up and down, with tiny alleys on both sides. In each alley there are a few families. The alleys are

2:Ling & Ruey--61 E-5 (1933) 1947 AE5 Miao
Central China AF14
/36/
342
361
491

Illus. 11. The bridge street of San-kung-ch'iao Bridge in Feng-huang (the bridge is over Wan-yung Chiang River).

C M 487 C M [505] [502] C M [505] C M 501 C M [505] C ●491 [563] [648] M [487]

Central China AF14

/44 cont./

about 97 li away. When the water rises in the summer, the river is navigable by small crafts to Yen-men and Shin-yang-shao. The total cargo weight of a boat cannot exceed a few shih, and the boat has to be towed or lifted by boatmen wading through the sand and rocks. Although the distance is short, the voyage is very strenuous.

The 270 li of the Yu Chiang from Yüan-ling to Pao-ching is navigable by small craft, carrying cargo not over several shih in weight, and covering only about a dozen li per day. From Pao-ching the river empties into the Sung-t'ao Ho, and when the water rises in the summer, light boats can go as far as Hua-yüan and Mi-no at Yung-sui, and may even be able to reach the city of Sung-t'ao.

The boat used in the Miao area generally measures nine kung ch'ih in length, divided into seven holds, the middle hold being the widest, about one kung ch'ih in width (Illus. 18, 19). The oar, the paddle, the pole, the mast, and other attachments of the boat are not different from those seen elsewhere, except that at the bow there is a long paddle about six kung ch'ih long, which is used for coming down the sandbanks. Traveling upstream offers the greatest difficulty. Every time a sandbank is crossed, the boat has to be poled, lifted, towed, or pushed by several dozen men. Their chanting is as loud as the angry waves.

From the middle of the Ming period up to the beginning of the Ch'ing period, soldiers were sent into the Miao area. The most important duty of the military garrisons was to keep the communication lines open for troops and food supplies. So the construction of roads and bridges in the area appears monumental. There are four kinds of land routes: the main road connecting Yunnan with Kweichow is the official road; the roads connecting the various military posts are military roads; the roads traversed by the Chinese people are civilian roads; and the small winding paths leading to Miao settlements are Miao roads. Taking Feng-huang as the center, the official road leads

/44 cont./

C 491 M [487] to Ch'en-chou, Mo-yang, and Chih-chiang; the military roads lead to Kan-ch'eng, Yung-sui, and T'ung-jen; the civilian roads lead to P'u-shih and Kan-ch'eng; and the Miao roads are on both sides of the military routes, threading out in all directions so numerous that they defy enumeration. The official and the military roads are all paved with stone slabs (Illus. 20), requiring considerable construction work. The civilian roads were not constructed in a uniform way, those passing prosperous areas being much better than others. The Miao paths generally M [487] follow the contours of the mountains and require very little human labor. As to the means of transportation, travelers /Illustrations 18-26 occur on pp. 45-52/ /53/ generally ride horses C M [492] [493] or ride in sedan chairs (Illus. 21), while cargo is carried by carriers on their backs.

[482] Bridges. — The bridge in the Miao area involve considerable construction work. On important communication roads, they generally built three or five-arch bridges (Illus. 11), C [485] on which were built houses for hotels and restaurants for the convenience of travelers. Places where a river is wide and shallow are spanned by long bridges (Illus. 22, 23). Places where a river is wide and deep are crossed by rope bridges (Illus. 24). In small streams which are narrow and have sandbanks they sat up stone steps, customarily called "ho shui ch'iao /"bridge enclosing the water"/ (Illus. 25), or they build small bridges (Illus. 26) over them.

2:Ling & Ruey--74 E-5 (1933) 1947 AE5 Miao
Central China AF14
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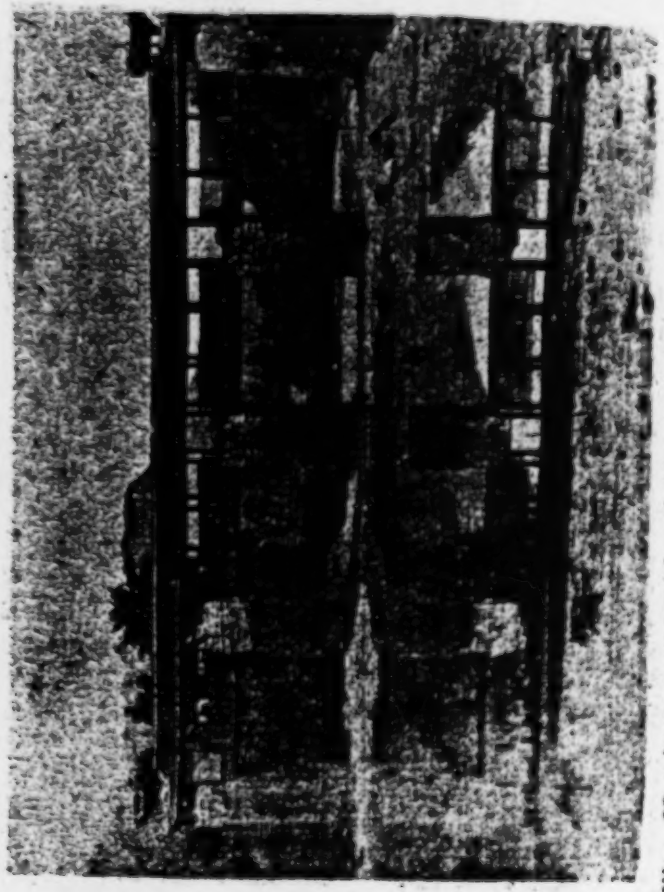
Illus. 20. The rock-slab main road at Ching-pien-kuang, Feng-huang.

2:Ling & Ruey--78 E-5 (1933) 1947 AE5 Miao
Central China AF14
/49/
491



Illus. 22. A stone-stepped long bridge in the Miao area.

2:Ling & Ruey--77 E-5 (1933) 1947 AE5 Miao
Central China AF14
/50/

Illus. 23. A wood-framework long bridge in the Miao area.

2:Ling & Ruey--78 E-5 (1933) 1947 AE5 Miao
Central China AF14
/51/

Illus. 24. Rope bridge, Ta-hsin-chai, Kan-ch'eng.

2:Ling & Ruey--79 E-5 (1933) 1947 AE5 Miao
Central China AF14
/52/
• 491

Illus. 25. Stone-stepped Ho-shui-ch'iao Bridge, in Feng-huang district.

Illus. 26. Single arch bridge, Ta-ma-p'o, Feng-huang.